IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) An ~~For use in a wireless communication system, an~~ integrated circuit comprising:

a set of integrated circuit capacitors each independently capable of at least one of: being selectively switched into ~~or out of~~ an inductive-capacitive resonant circuit and being selectively switched out of the inductive-capacitive resonant circuit; and

a capacitance selection controller capable of:

receiving a signal representative of a difference between a resonant frequency of the inductive-capacitive resonant circuit and a reference frequency; and [[,]]

~~wherein the capacitance selection controller~~ controlling [[s]] switching of one or more of the integrated circuit capacitors ~~into or out of the inductive-capacitive resonant circuit~~ in response to the difference between the resonant and reference frequencies to alter the resonant frequency towards the reference frequency.

2. (Original) The integrated circuit according to claim 1, wherein the inductive-capacitive resonant circuit further comprises:

at least one inductor; and

one of:

at least one of the integrated circuit capacitors within the set, or

at least one capacitor which cannot be selectively switched into or out of the inductive-capacitive resonant circuit, alone or with any combination of the integrated circuit capacitors within the set.

3. (Original) The integrated circuit according to claim 1, wherein the set of integrated circuit capacitors further comprises:

a sequence of varying capacitances each equal to a multiple of an adjacent capacitance within the sequence, wherein the sequence is scaled from a capacitance corresponding to a maximum frequency adjustment, a capacitance corresponding to a minimum frequency adjustment, or both.

4. (Original) The integrated circuit according to claim 3, wherein the set of integrated circuit capacitors includes n parallel branches and integrated circuit capacitors within the set are switched into or out of the inductive-capacitive resonant circuit by an n bit binary count of pulses representative of the difference between the resonant and reference frequencies.

5. (Original) The integrated circuit according to claim 1, wherein the set of integrated circuit capacitors are disposed within an oscillator stage for an integrated circuit tuner, the integrated circuit tuner further comprising:

a counterpart set of integrated circuit capacitors each independently capable of being selectively switched into or out of an inductive-capacitive resonant circuit within an amplifier stage for the integrated circuit tuner, wherein the capacitance selection controller concurrently switches into or out of the inductive-capacitive resonant circuit within the amplifier stage any of the counterpart integrated circuit capacitors which correspond to the one or more integrated circuit capacitors switched into or out of the inductive-capacitive resonant circuit within the oscillator stage.

6. (Original) The integrated circuit according to claim 1, wherein the set of integrated circuit capacitors are disposed within an oscillator for an integrated circuit tuner, the integrated circuit tuner further comprising:

a frequency divider within a feedback loop from the oscillator to a phase detector receiving the reference frequency and generating the signal representative of the difference between the resonant and reference frequencies.

7. (Original) The integrated circuit according to claim 1, wherein the set of integrated circuit capacitors are arranged in parallel branches each including a series-connected capacitor pair and a low impedance switch coupling a respective branch to a virtual ground.

8. (Currently Amended) A ~~For use in a wireless communication system, a~~ receiver comprising:

a connection for ~~selectively~~ coupling the receiver to an antenna receiving wireless signals; and

an integrated circuit tuner coupled to the connection, the integrated circuit tuner comprising:

a set of integrated circuit capacitors each independently capable of at least one of: being selectively switched into ~~or out of~~ an inductive-capacitive resonant circuit and being selectively switched out of the inductive-capacitive resonant circuit; and

a capacitance selection controller capable of:

receiving a signal representative of a difference between a resonant frequency of the inductive-capacitive resonant circuit and a reference frequency; and [[,]]

~~wherein the capacitance selection controller~~ controlling [[s]] switching of one or more of the integrated circuit capacitors ~~into or out of the inductive-capacitive resonant circuit~~ in response to the difference between the resonant and reference frequencies to alter the resonant frequency towards the reference frequency.

9. (Original) The receiver according to claim 8, wherein the inductive-capacitive resonant circuit further comprises:

at least one inductor; and

one of:

at least one of the integrated circuit capacitors within the set, or

at least one capacitor which cannot be selectively switched into or out of the inductive-capacitive resonant circuit, alone or with any combination of the integrated circuit capacitors within the set.

10. (Original) The receiver according to claim 8, wherein the set of integrated circuit capacitors further comprises:

a sequence of varying capacitances each equal to a multiple of an adjacent capacitance within the sequence, wherein the sequence is scaled from a capacitance corresponding to a maximum frequency adjustment, a capacitance corresponding to a minimum frequency adjustment, or both.

11. (Original) The receiver according to claim 10, wherein the set of integrated circuit capacitors includes n parallel branches and integrated circuit capacitors within the set are switched into or out of the inductive-capacitive resonant circuit by an n bit binary count of pulses representative of the difference between the resonant and reference frequencies.

12. (Original) The receiver according to claim 8, wherein the set of integrated circuit capacitors are disposed within an oscillator stage for the integrated circuit tuner, the integrated circuit tuner further comprising:

a counterpart set of integrated circuit capacitors each independently capable of being selectively switched into or out of an inductive-capacitive resonant circuit within an amplifier stage for the integrated circuit tuner, wherein the capacitance selection controller concurrently switches into or out of the inductive-capacitive resonant circuit within the amplifier stage any of the counterpart integrated circuit capacitors which correspond to the one or more integrated circuit capacitors switched into or out of the inductive-capacitive resonant circuit within the oscillator stage.

13. (Original) The receiver according to claim 8, wherein the set of integrated circuit capacitors are disposed within an oscillator for the integrated circuit tuner, the integrated circuit tuner further comprising:

a frequency divider within a feedback loop from the oscillator to a phase detector receiving the reference frequency and generating the signal representative of the difference between the resonant and reference frequencies.

14. (Original) The receiver according to claim 8, wherein the set of integrated circuit capacitors are arranged in parallel branches each including a series-connected capacitor pair and a low impedance switch coupling a respective branch to a virtual ground.

15. (Currently Amended) A ~~For use in a wireless communication system, a~~ method of tuning a receiver comprising:

receiving a signal representative of a difference between a resonant frequency of an inductive-capacitive resonant circuit and a reference frequency; and

in response to a difference between the resonant and reference frequencies, selectively switching one or more integrated circuit capacitors from a set of integrated circuit capacitors, each independently capable of at least one of being selectively switched into ~~or out of~~ the inductive-capacitive resonant circuit and being selectively switched out of the inductive-capacitive resonant circuit, ~~into or out of the inductive-capacitive resonant circuit~~ to alter the resonant frequency towards the reference frequency.

16. (Original) The method according to claim 15, further comprising:

exciting at least one inductor within the inductive-capacitive resonant circuit together with one of:

all of the integrated circuit capacitors within the set which are switched into the inductive-capacitive resonant circuit, or

at least one capacitor which cannot be selectively switched into or out of the inductive-capacitive resonant circuit, alone or with all of the integrated circuit capacitors within the set which are switched into the inductive-capacitive resonant circuit.

17. (Original) The method according to claim 15, wherein the step of selectively switching one or more integrated circuit capacitors from a set of integrated circuit capacitors into or out of the inductive-capacitive resonant circuit to alter the resonant frequency towards the reference frequency further comprises:

switching selected capacitors providing, in combination, a desired capacitance from a sequence of varying capacitances each equal to a multiple of an adjacent capacitance within the sequence, wherein the sequence is scaled from a capacitance corresponding to a maximum frequency adjustment, a capacitance corresponding to a minimum frequency adjustment, or both.

18. (Original) The method according to claim 17, wherein the set of integrated circuit capacitors includes n parallel branches and the step of selectively switching one or more integrated circuit capacitors from a set of integrated circuit capacitors into or out of the inductive-capacitive resonant circuit to alter the resonant frequency towards the reference frequency further comprises:

switching integrated circuit capacitors within the set into or out of the inductive-capacitive resonant circuit by an n bit binary count of pulses representative of the difference between the resonant and reference frequencies.

19. (Original) The method according to claim 15, wherein the set of integrated circuit capacitors are disposed within an oscillator stage for an integrated circuit tuner, the method further comprising:

in response to the difference between the resonant and reference frequencies, concurrently switching into or out of an inductive-capacitive resonant circuit within an amplifier stage for the integrated circuit tuner any integrated circuit capacitors from a counterpart set of integrated circuit capacitors, each independently capable of being selectively switched into or out of the inductive-capacitive resonant circuit within the amplifier stage, which correspond to the one or more integrated circuit capacitors switched into or out of the inductive-capacitive resonant circuit within the oscillator stage.

20. (Original) The method according to claim 15, wherein the set of integrated circuit capacitors are disposed within an oscillator for an integrated circuit tuner, the method further comprising:

receiving the reference frequency;

dividing an output frequency of the oscillator; and

generating the signal representative of the difference between the resonant and reference frequencies from the reference frequency and the divided output frequency of the oscillator.